

# FIGURE 1

1 ATGGTCAGTGGGAGCCATGAAGAAGGGAGTGGGAGGGCAGTTGGGCTTGGGGCAGC 60  
61 GCTGCCAGGGCTACGGAGGAAGACCCCTTCCGACTGCGGGGCTTGCCTCGGGACAA 120  
121 GTGGCAGGGCCTGGAGGTGCCAGCCTGGTGGGTGAGGGGAGCTAGCTGGTTG 180  
181 TGGGAGCAGGGCACGGCACTGGCTGGATGGACCTGGCTGGCTGGCCACTGGT 240  
241 CCCAATGCCAGAACACCTCTGATGGCCCGATAACCTCACTTCACTCAGCAGGATCACCTCT 300  
301 CGCACGGGAGGCACTCCTCATCAACATCATCATGCCCTGGGTGGTCCACCATCTGC 360  
361 CTCCCTGGGACATCGGGAAACTCACGGTCATCTGGGTGCGTGAAGAAGTCCAAAGCTG 420  
480 421 CACTGGTGAACACGTCCCCGACATCTTCATCATCAACCTCTGGTAGTAGATCTCTCC 540  
481 TTTCCTGGGATGCCCTCATGATCCACCGAGCTATGGGCAATAGTCAGTTCAACAGCACC 600  
541 GGGGAGACCATGTGACCCCTCATACGGCCATGGATGCCATAGTCAGTTCACTCTCTCC 660  
601 TACATCCCTGGGCCATGGCCATGGCCATTGACCGCTYACCTGGCCACTGTCCACCCCCTATCAT 720  
661 ACGAAGTTCCGGAAGCCCTCTGTGGCCACCCCTGGTATGCCAGACTCATCCCCCTGGGACCA 780  
721 TTTCATCAGCATCACCCCTGTGTGGCTACTGCTACACTGACTCTACTGGTTACCCCTGTAC 840  
781 GTGGGCTGGGCATAGCCCTGCCAAACCCAGACACTGACTCTACTGGTACCCCTGTAC 900  
841 CAGTTTTCTGGCCATTGCCCTTGCCCTGCCATACAGCCGATACTGTGAGGATC 960  
901 CTGGCAGGGCATGACGTCCAGTGGCCCCCGCTCCAGCAGCATCCGGCTGGGACAA 1020  
961 AAAGGGGTGACCCGGCACGCCATCGCCATCTGTCGGCTCTCTTGTGTGCTGGGACCC 1080  
1021 TACTATGGCTACAGCTGACCCAGTTGTCCCATCAGCCGGCAGCCCTACCTTGTCTAC 1140  
1081 TTATACAATGGGCCATCAGCTGGGCTATGCCAACAGCTGCCTCAACCCCTTGTGTAC 1200  
1141 ATCGTGCTCTGTGAGACGTTCCGAAACGCTGGTCCCTGTGGTGAAGGCTGAGCCAG 1260  
1201 GGGCAGCTTCGGCTGTCAAGAACGCTAGACGGCTGACAGGGAGGACAGAAAGCAA 1269  
1261 GGACACTGA

## FIGURE 2

1	M S V G A M K K G V G R A V G L G G G S	20
21	G C Q A T E E D P L P D C G A C A P G Q	40
41	G G R R W R L P Q P A W V E G S S A R L	60
61	W E Q A T G T G W M D L E A S L L P T G	80
81	P N A S N T S D G P D N L T S A G S P P	100
101	R T G S I S Y I N I I M P S V F G T I C	120
121	L L G I I G N S T V I F A V V K K S K L	140
141	H W C N N V P D I F I I N L S V V D L L	160
161	F L L G M P F M I H Q L M G N G V W H F	180
181	G E T M C T L I T A M D A N S Q F T S T	200
201	Y I L T A M A I D R Y L A T V H P I S S	220
221	T K F R K P S V A T L V I C L L W A L S	240
241	F I S I T P V W L Y A R L I P F P G G A	260
261	V G C G I R L P N P D T D L Y W F T L Y	280
281	Q F F L A F A L P F V V I T A A Y V R I	300
301	L Q R M T S S V A P A S Q R S I R L R T	320
321	K R V T R T A I A I C L V F F V C W A P	340
341	Y Y V L Q L T Q L S I S R P T L T F V Y	360
361	L Y N A A I S L G Y A N S C L N P F V Y	380
381	I V L C E T F R K R L V L S V K P A A Q	400
401	G Q L R A V S N A Q T A D E E R T E S K	420
421	G T	422

## FIGURE 3

1 M S V G A M K K G V G R A V G L G G G S 20  
 21 G C Q A T E E D P L P D C G A C A P G Q 40  
 41 G G R R W R L P Q P A W V E G S S A R L 60  
 61 W E Q A T G T G W M D L E A S L L P T G 80  
 81 P N A S N T S D G P D N L T S A G S P P 100  
 101 R T G S I S Y I N I I M P S V F G T I C 120  
 I  
 121 L L G I I G N S T V I F A V V K K S K L 140  
 II  
 141 H W C N N V P D I F I I N L S V V D L L 160  
 161 F L L G M P F M I H Q L M G N G V W H F 180  
 181 G E T M C T L I T A M D A N S O F T S T 200  
 III  
 201 Y I L T A M A I D R Y L A T V H P I S S 220  
 221 T K F R K P S V A T L V I C L L W A L S 240  
 IV  
 241 F I S I T P V W L Y A R L I P F P G G A 260  
 261 V G C G I R L P N P D T D L Y W F T L Y 280  
 V  
 281 Q F F L A F A L P F V V I T A A Y V R I 300  
 301 L Q R M T S S V A P A S Q R S I R L R T 320  
 VI  
 321 K R V T R T A I A I C L V F F V C W A P 340  
 341 Y Y V L O L T O L S I S R P T L T F V Y 360  
 VII  
 361 L Y N A A I S L G Y A N S C L N P F V Y 380  
 381 I V L C E T F R K R L V L S V K P A A Q 400  
 401 G Q L R A V S N A Q T A D E E R T E S K 420  
 421 G T 422

FIGURE 4

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60	GCAGGGGACACTGCACCGGTGCGATGGATCTGCAAACCTCGTTGTCGTCACCTGGCCCCAA
61	TGCCAACATCTCCGATGGCCAGGATAATTCTACATTGCGGGTCACTCTCCCTCGCAC
121	AGGGAGTGTCTCCATACATCAACATCATATTGCGCTTCCGTGTTGGTACCATCTGTCTCT
181	GGGCATCGTGGAAACTCCACGGTCATCTTGTGTCGGTGAAGGAAGTCCAAAGTACACTG
241	GTGAGCCAACTGCCCCGACATCTTCATCAACTCTGTCATCAACCTCTGTGGGATCTGCTCT
301	GCTGGGCATGCCCTTCATGATCCACCAAGCTCATGGGGAAACGGCTGCTGGCACATTGGGA
361	AACCATGTCACCCCTCATCACGGCATTCACGGCCAAACAGTCAGTTCACTAGCACCTACAT
421	CCGTGACTGCGATGACCCATTGACCGCTACATTGGCCACCGTCCACCCCATCTCCACCAA
481	GTTTCCGGAAAGGCCCTCCATGGCACCCCTGGTGAATGTCGCTCCTGTGGGCGCTCTCCCTCAT
541	CAGPATCACCCCTGTGGCTCTACGCCAGGCTCAATTCCCTCCAGGGGGTGTGG
601	CTGTGGATCCGCTGCACAAACCCGGACACTGACCTCTACTGGTCACTGTGACCTTT
661	TTTTCCCTGGCCTTGGCCCTTCGGTTGGTCATTAACGCCGATACGTGAAATACTACAA
721	GCGCATGAGTCGCTTCGGTGGCCCAAGGCCCTCCAAAGCATCCGGCTTCGGACAAAGAG
781	GTTGACCCGACAGGCCATTGCCATCTGTGGTCTTCTTGTGTCGGCACCTACTA
841	TGTGCTGCGAGGTGACCCGAAGCTGACCTGGCTGAGCTGCTGACGTTGTCAGTGTACATAGT
901	CAACGGGGCAGCATGGCTGGGCTATGCTAACAGCTGCGCTGAAACCCCTTTGTGTACATAGT
961	GCTCUCGAGACCTTTCGAAAACGCTTGGTGTGTCAGTGAAGGCCTGCAAGCCCCAGGGGCA
1021	GCTTCCGGACAGGTCAAGCAAGCTCAGACAGCTGATGAGGAGAGACAGAAAGCAAAAGGCAC
11081	CTGAGAAATTCCCGTAGGCCCTCCAAGTCAGGGCACCCCCATCAAAACCGTGGGAGAGATAC
11141	TGAGATTAACCCAAAGGCTACCCCTGGGAGATGCAAGGGCTGAGGCTGGGCTTGTGAG
1201	CAACCCACATTCCAC

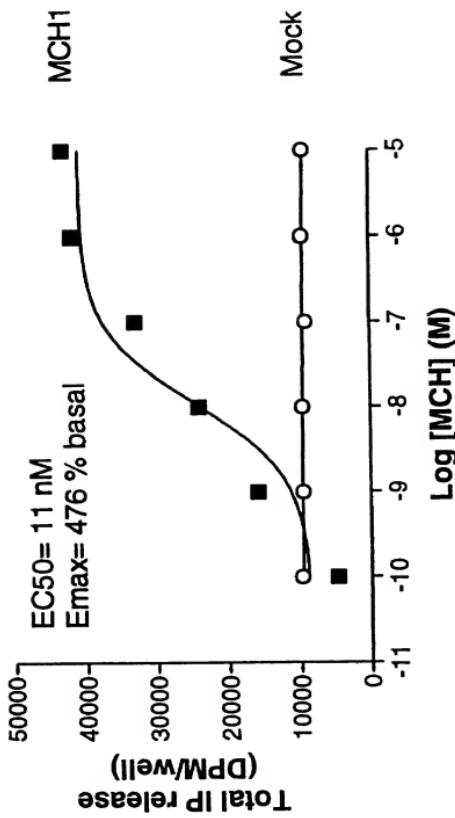
## FIGURE 5

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1	M	D	L	Q	T	S	L	P	G	S	T	G	20
21	Q	D	N	L	T	S	L	P	G	S	V	S	40
41	I	T	M	P	S	V	F	G	T	I	V	Y	60
61	V	I	F	A	V	V	K	K	S	K	S	N	80
81	F	I	I	N	L	S	S	V	D	L	L	S	100
101	H	Q	L	M	N	G	V	W	H	F	T	S	120
121	A	M	D	A	T	V	H	P	I	S	T	G	140
141	R	Y	L	A	T	C	L	W	P	G	G	A	160
161	T	L	V	I	C	L	P	F	P	G	A	T	180
181	Y	A	R	L	I	T	A	Y	V	K	T	R	200
201	P	D	T	D	L	Y	W	F	T	L	Y	Q	220
221	F	V	V	I	T	A	S	I	R	L	R	T	240
241	P	A	S	Q	R	F	F	C	W	A	P	A	260
261	I	C	L	V	F	F	T	L	T	E	V	L	280
281	S	I	S	R	P	T	L	N	P	F	V	Y	300
301	Y	A	N	S	C	L	K	P	A	A	Q	G	320
321	R	L	V	L	S	V	U	P	E	R	T	S	340
341	Q	T	A	D	E	R	E	T	E	S	K	G	354

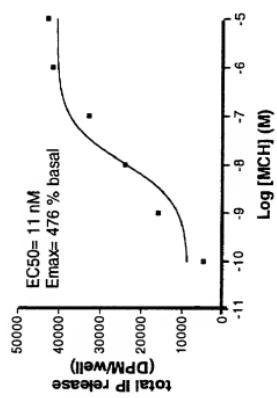
FIGURE 6

**IP release in MCH1- and  
mock-transfected Cos-7 cells**



**FIGURE 7**

IP release in MCH1-transfected  
Cos-7 cells  
24 well, 10/9/98



IP release in MCH1-transfected

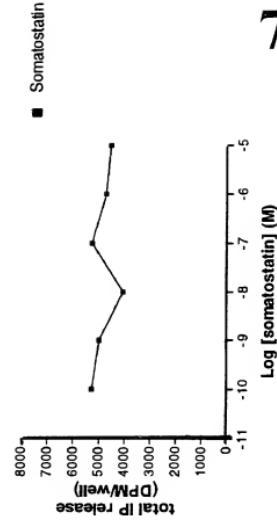
Cos-7 cells

24 well, 10/9/98

IP release in MCH1-transfected

Cos-7 cells

24 well, 10/9/98



IP release in MCH1-transfected

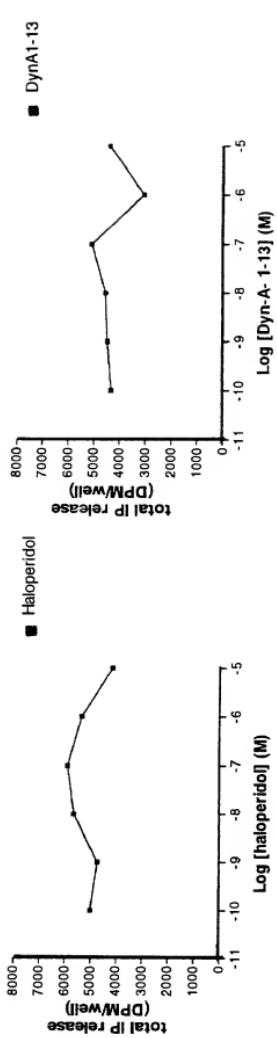
Cos-7 cells

24 well, 10/9/98

IP release in MCH1-transfected

Cos-7 cells

24 well, 10/9/98



IP release in MCH1-transfected

Cos-7 cells

24 well, 10/9/98

IP release in MCH1-transfected

Cos-7 cells

24 well, 10/9/98

FIGURE 8 8/27  
 Microphysiometer Response  
 CHO cells

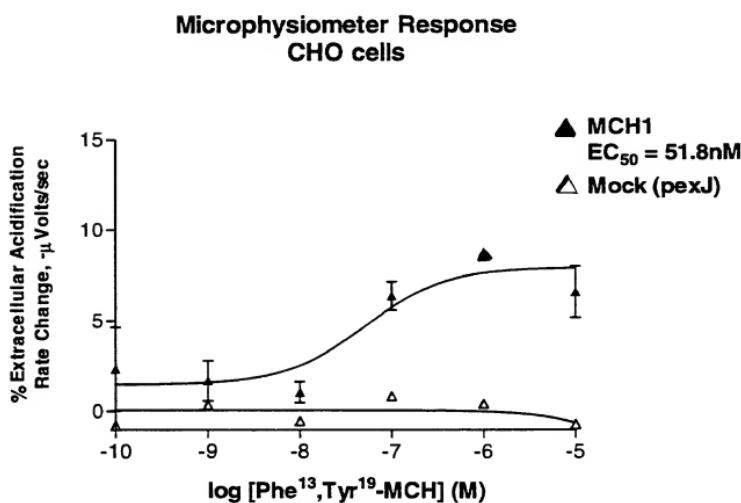
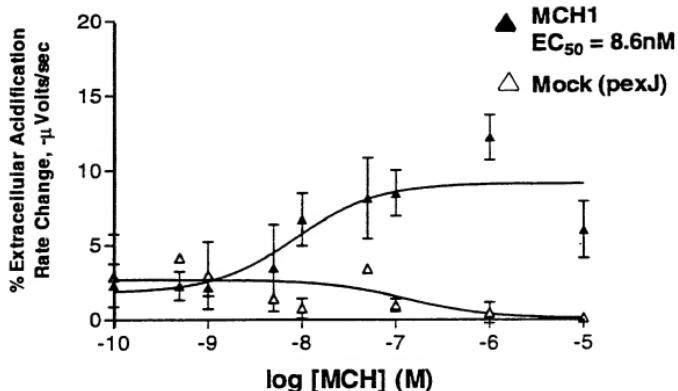
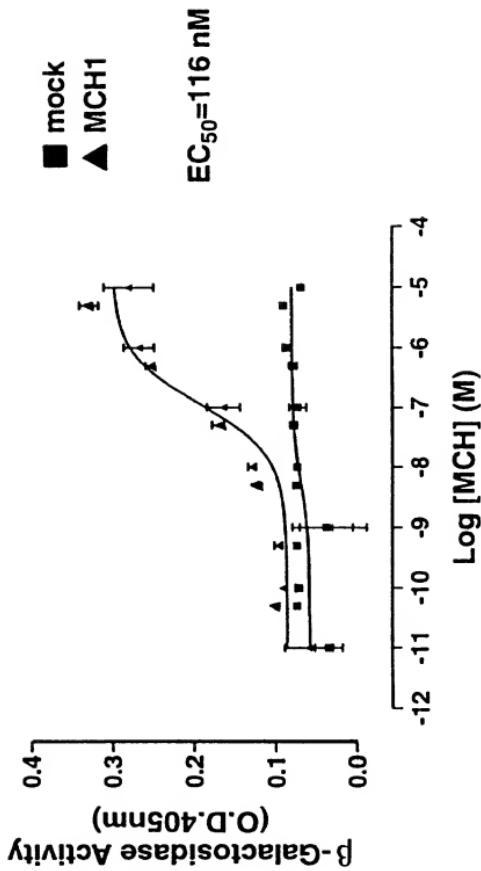
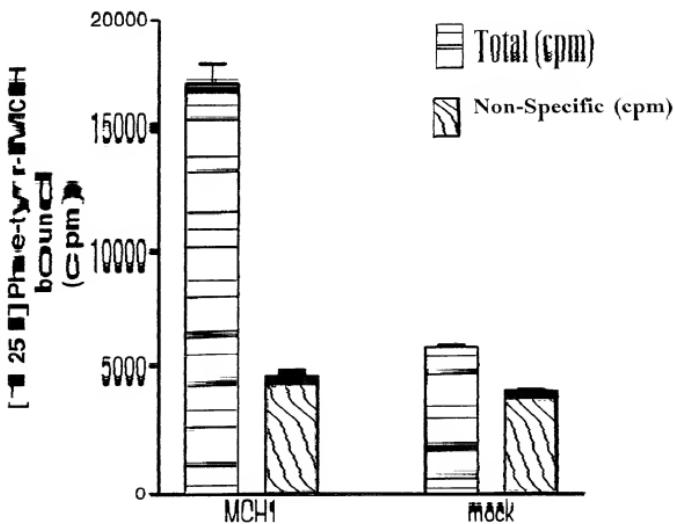
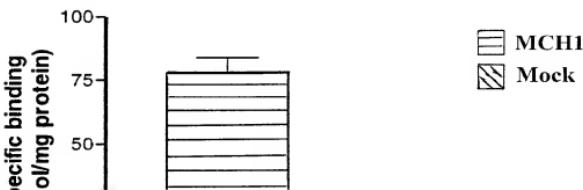


FIGURE 9

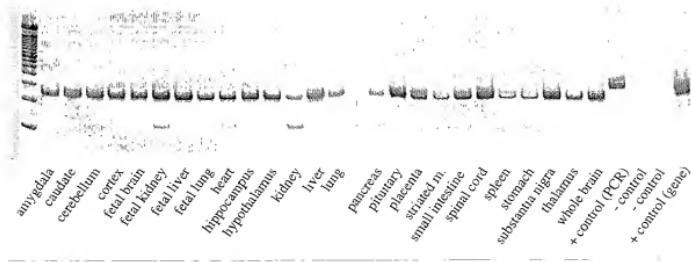
Agonist-Mediated c-fos- $\beta$ -gal  
Activity in Cos-7 Cells



**FIGURE 10****[<sup>125</sup>I]Phe<sub>13</sub>-Tyr<sub>19</sub>-MCH  
binding on transiently  
transfected Cos-7 cells****[<sup>125</sup>I]Phe<sub>13</sub>-Tyr<sub>19</sub>-MCH  
binding on transiently  
transfected Cos-7 cells**

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# FIGURE 11



# FIGURE 12

YDSEZC "ZC" ZCZCZCZC

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				40
TL231	MSVGAMKKGV	GRAVGLGGGS	GCQATEEDPL	PDCGACAA2GQ
R106	MSVGAMKKGV	GRAVGLGGGS	GCQATEEDPL	PDCGACAA2GQ
R114	MSVGAaKKGV	GRAVGLGGGS	GCQATEEDPL	PDCGACAA2GQ
BO120	-----	-----	-----	-----
				41
TL231	GGRRWRLPQP	AWVEGSSARL	WEOATGTGWM	DLEASLLPTG
R106	GGRRWRLPQP?	AWVEGSSARL	WEOATGTGWA	DLEASLLPTG
R114	GGRRWRLPQP?	AWVEGSSARL	WEOATGTGWA	DLEASLLPTG
BO120	-----	-----	-----	-----
				80
TL231	PNASNTSDGP?	DNLTSAGSPP...		
R106	PNASNTSDGP?	DNLTSAGSPP...		
R114	PNASNTSDGP?	DNLTSAGSPP...		
BO120	PNASNTSDGP?	DNLTSAGSPP...		
				100
TL231	PNASNTSDGP?	DNLTSAGSPP...		
R106	PNASNTSDGP?	DNLTSAGSPP...		
R114	PNASNTSDGP?	DNLTSAGSPP...		
BO120	PNASNTSDGP?	DNLTSAGSPP...		

## FIGURE 13

1	M	S	V	G	A	M	K	K	G	V	G	R	A	V	G	L	G	G	G	S	20
21	G	C	Q	A	T	E	E	D	P	L	P	D	C	G	A	C	A	P	G	Q	40
41	G	G	R	R	W	R	L	P	Q	P	P	A	W	V	E	G	S	S	A	R	60
61	W	E	Q	A	T	G	T	G	W	A	D	L	E	A	S	L	L	P	T	G	80
81	P	N	A	S	S	T	S	D	G	P	D	N	L	T	S	A	G	S	P	P	100
101	R	T	G	S	I	S	Y	I	N	I	I	M	P	S	V	F	G	T	I	C	120
121	L	L	G	I	I	G	N	S	T	V	I	F	A	V	V	K	K	S	K	L	140
141	H	W	C	N	N	V	P	D	I	F	I	I	N	L	S	V	V	D	L	L	160
161	F	L	L	G	M	P	F	M	I	H	Q	L	M	G	N	G	V	W	H	F	180
181	G	E	T	M	C	T	L	I	T	A	M	D	A	N	S	Q	F	T	S	T	200
201	Y	I	L	T	A	M	A	I	D	R	Y	L	A	T	V	H	P	I	S	S	220
221	F	K	F	R	K	P	S	V	A	T	L	V	I	C	L	L	W	A	L	S	240
241	F	I	S	I	T	P	V	W	L	Y	A	R	L	I	P	E	P	G	G	A	260
261	V	G	C	G	I	R	L	P	N	P	D	T	D	L	Y	W	F	T	L	Y	280
281	Q	F	F	L	A	F	A	L	E	F	V	V	I	T	A	A	Y	V	R	I	300
301	L	Q	R	M	T	S	S	V	A	P	A	S	Q	R	S	I	R	L	R	T	320
321	K	R	V	T	R	T	A	I	A	I	C	L	V	F	F	V	C	W	A	P	340
341	Y	Y	V	L	Q	L	T	Q	L	S	I	S	R	P	T	L	T	F	V	Y	360
361	L	Y	N	A	A	I	S	L	G	Y	A	N	S	C	L	N	P	F	V	Y	380
381	I	V	L	C	E	T	F	R	K	R	L	V	L	S	V	K	P	A	A	Q	400
401	G	Q	L	R	A	V	S	N	A	Q	T	A	D	E	E	R	T	E	S	K	420
421	G	T																			422

## FIGURE 14

1	M	S	V	G	A	A	K	K	G	V	G	R	A	V	G	L	G	G	G	S	20
21	G	C	Q	A	T	E	E	D	P	L	P	D	C	G	A	C	A	P	G	Q	40
41	G	G	R	R	W	R	L	P	Q	P	A	W	V	E	G	S	S	A	R	L	60
61	W	E	Q	A	T	G	T	G	W	A	D	L	E	A	S	L	L	P	T	G	80
81	P	N	A	S	N	T	S	D	G	P	D	N	L	T	S	A	G	S	P	P	100
101	R	T	G	S	I	S	Y	I	N	I	I	M	P	S	V	F	G	T	I	C	120
121	L	L	G	I	I	G	N	S	T	V	I	F	A	V	V	K	K	S	K	L	140
141	H	W	C	N	N	V	P	D	I	F	I	I	N	L	S	V	V	D	L	L	160
161	F	L	E	G	M	P	F	M	I	H	Q	L	M	G	N	G	V	W	H	F	180
181	G	E	T	M	C	T	L	I	T	A	M	D	A	N	S	Q	F	T	S	T	200
201	Y	I	I	L	T	A	M	A	I	D	R	Y	L	A	T	V	H	P	I	S	220
221	T	K	F	R	K	P	S	V	A	T	L	V	I	C	L	L	W	A	L	S	240
241	F	I	S	I	T	P	V	W	L	Y	A	R	L	I	P	F	P	G	G	A	260
261	V	G	C	G	I	R	L	P	N	P	D	T	D	L	Y	W	F	T	L	Y	280
281	Q	F	F	L	A	F	A	L	P	F	V	V	I	T	A	A	Y	V	R	I	300
301	L	Q	R	M	T	T	S	S	V	A	P	A	S	Q	R	S	I	R	L	R	320
321	K	R	V	T	R	T	A	I	A	I	C	L	V	F	F	V	C	W	A	P	340
341	Y	Y	V	L	Q	L	T	Q	L	S	I	S	R	P	T	L	T	F	V	Y	360
361	L	Y	N	A	A	I	S	L	G	Y	A	N	S	C	L	N	P	F	V	Y	380
381	I	V	L	C	E	T	F	R	K	R	L	V	L	S	V	K	P	A	A	Q	400
401	G	Q	L	R	A	V	S	N	A	Q	T	A	D	E	E	R	T	E	S	K	420
421	G	T																			422

## FIGURE 15

1	M	D	L	E	A	S	L	L	P	T	G	P	N	A	S	N	T	S	D	G	20
21	P	D	N	L	T	S	A	G	S	P	P	R	T	G	S	I	S	Y	I	N	40
41	I	I	M	P	S	V	F	G	T	I	C	L	L	G	I	I	G	N	S	T	60
61	V	I	F	A	V	V	K	K	S	K	L	H	W	C	N	N	V	P	P	O	80
81	F	I	I	N	L	S	V	V	D	L	L	F	L	L	G	M	P	F	M	I	100
101	H	Q	E	M	G	N	G	V	W	H	F	G	E	T	M	C	T	I	I	T	120
121	A	M	D	A	N	S	Q	F	T	S	T	Y	I	L	T	A	M	A	I	I	140
141	R	Y	L	A	T	V	H	P	I	S	S	T	K	F	R	K	P	S	V	A	160
161	T	L	V	I	C	L	L	W	A	L	S	F	I	S	I	T	P	V	W	L	180
181	Y	A	R	L	I	P	F	P	G	G	A	V	G	C	G	I	R	L	P	N	200
201	P	G	T	D	D	L	Y	W	F	T	L	Y	Q	F	F	L	A	A	S	V	220
221	F	V	V	I	T	A	A	Y	V	R	I	L	Q	R	M	T	R	T	A	I	240
241	P	A	S	Q	R	S	I	R	L	R	T	K	R	V	T	R	T	A	I	A	260
261	I	C	L	V	F	F	V	C	W	A	P	Y	Y	V	L	Q	L	T	Q	L	280
281	S	I	G	R	P	T	L	T	F	V	Y	I	V	L	C	E	T	F	R	K	300
301	Y	A	N	S	C	L	N	P	F	V	Y	I	V	L	C	E	T	F	R	K	320
321	R	L	V	L	S	V	K	P	A	Q	G	Q	L	R	A	V	S	N	A	340	
341	Q	T	A	D	E	E	R	T	E	S	K	G	T								353

FIGURE 16

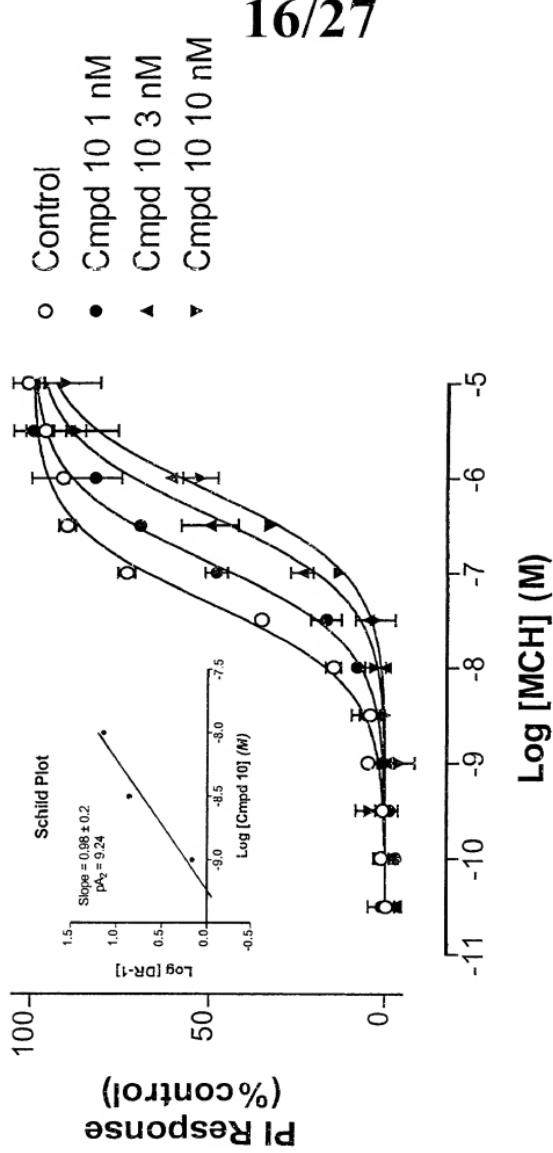


FIGURE 17

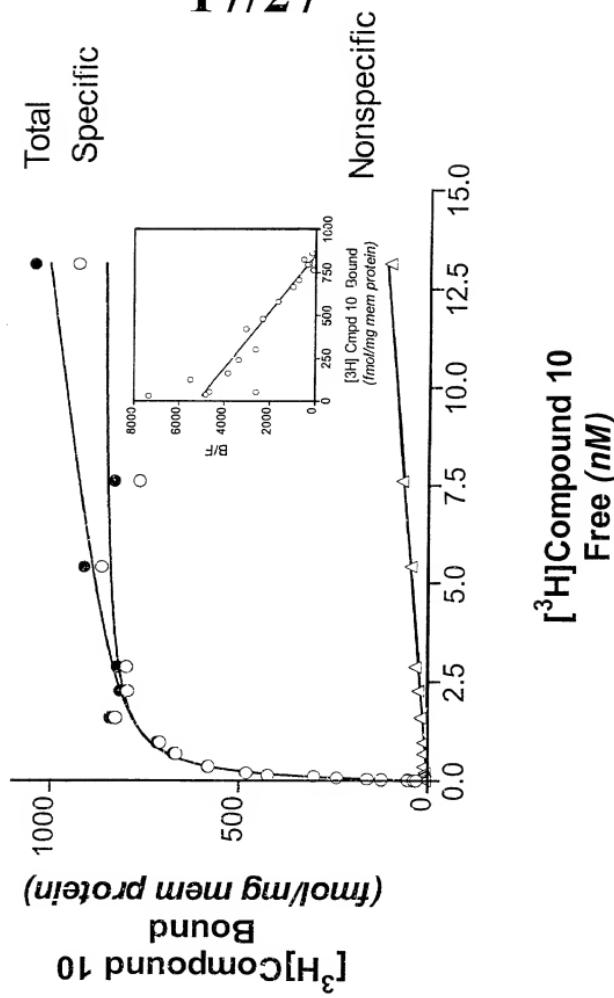
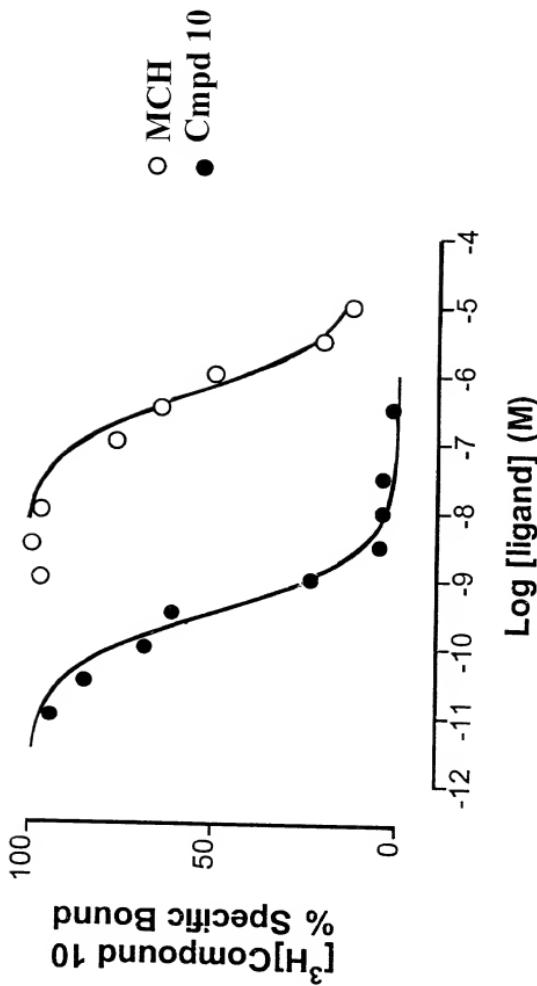
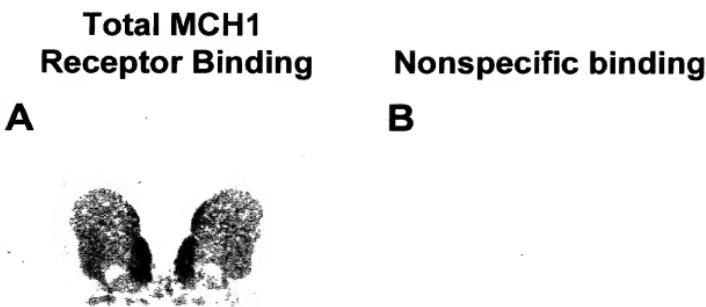


FIGURE 18



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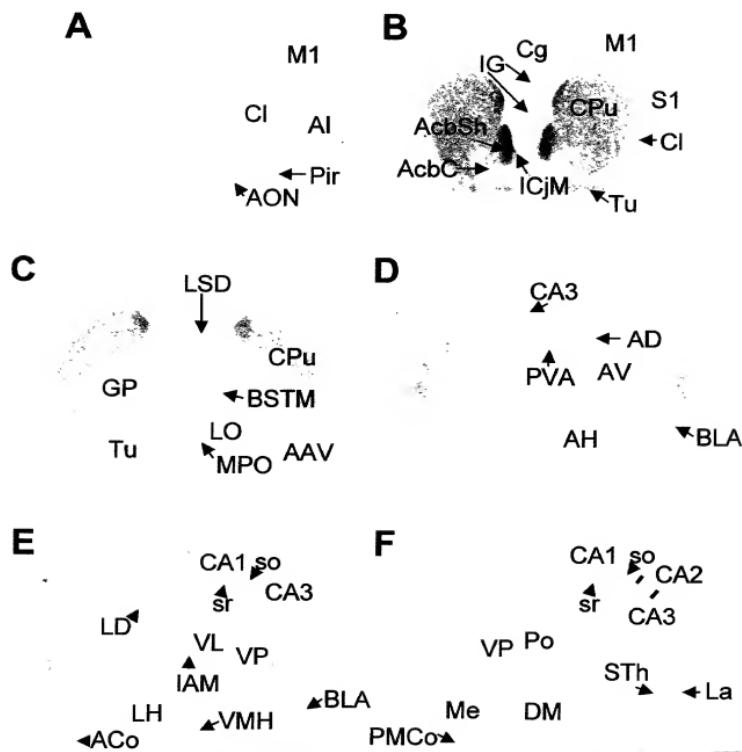
## **FIGURE 19**



TD5020 "2E266860

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## FIGURE 20A



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**FIGURE 20B**

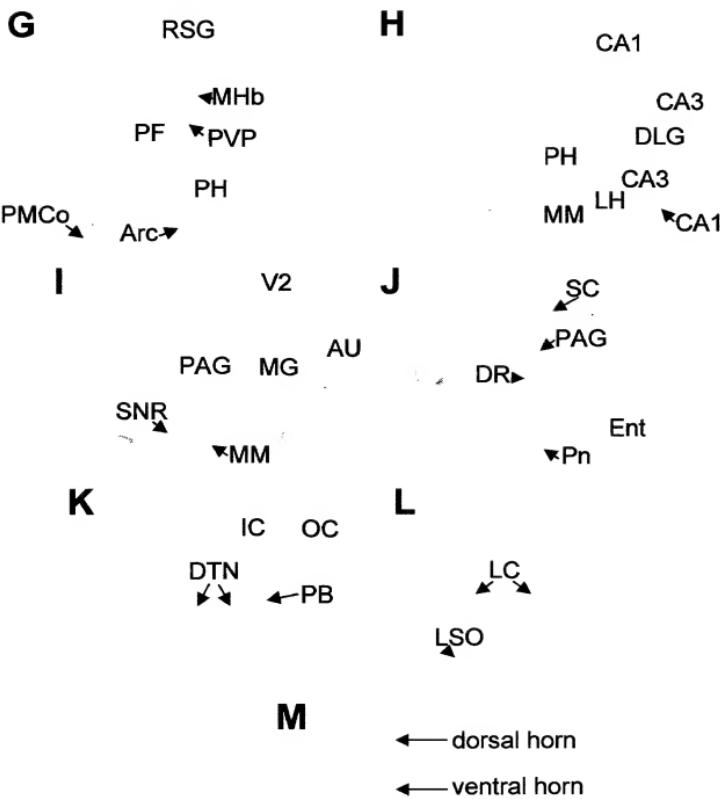


FIGURE 21

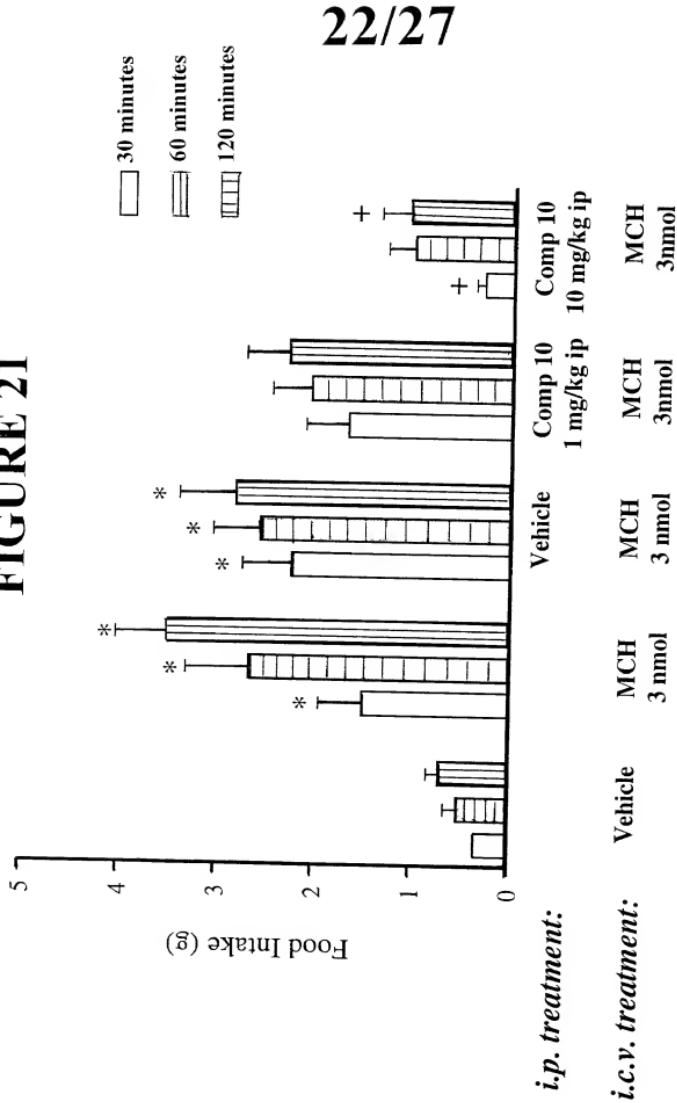
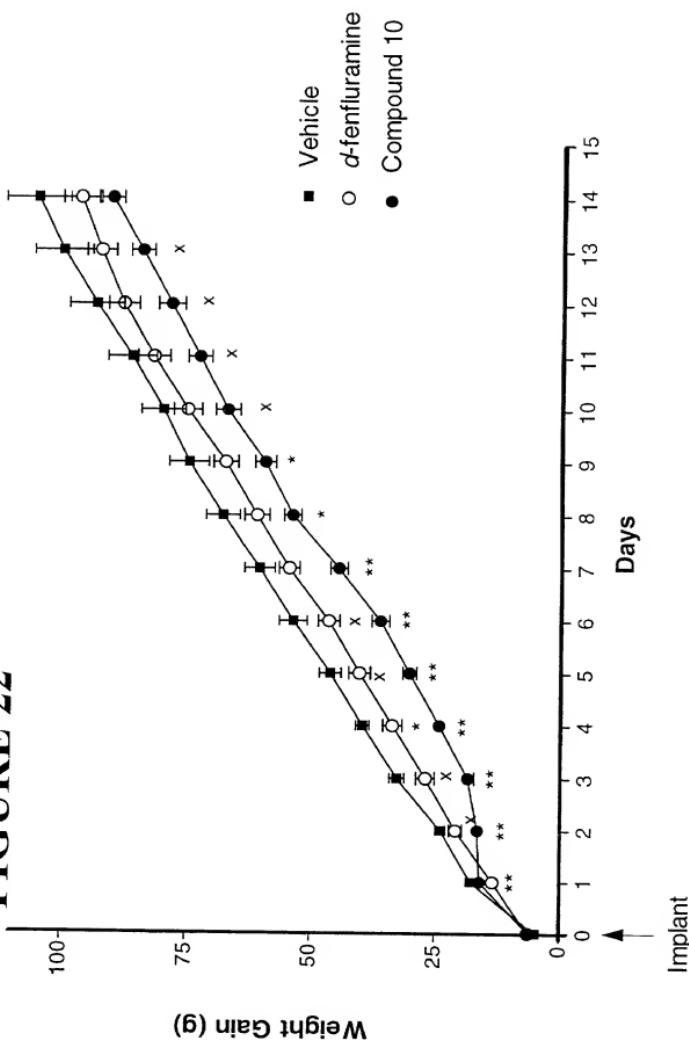
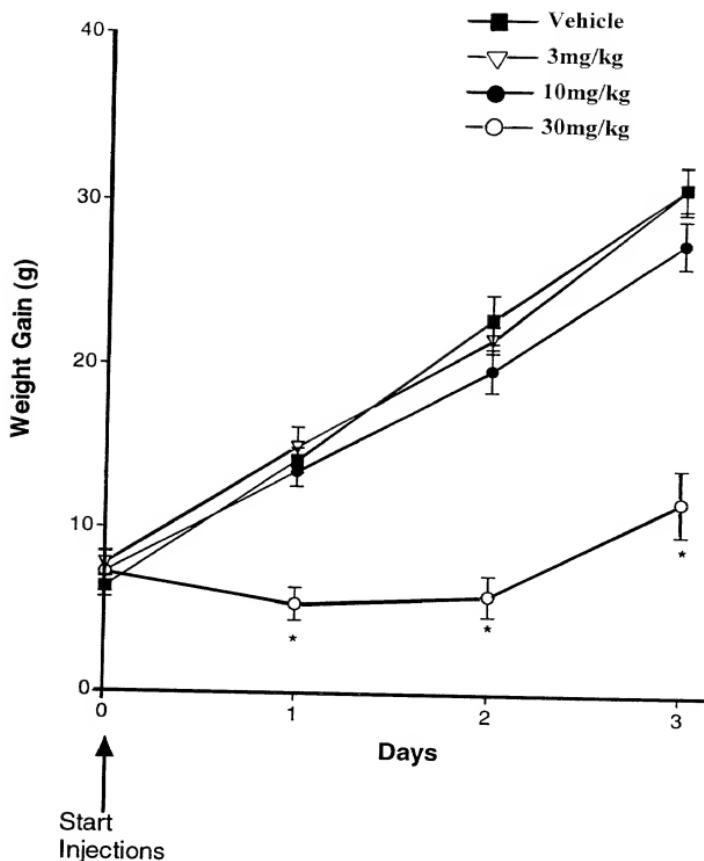


FIGURE 22



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FIGURE 23



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FIGURE 24

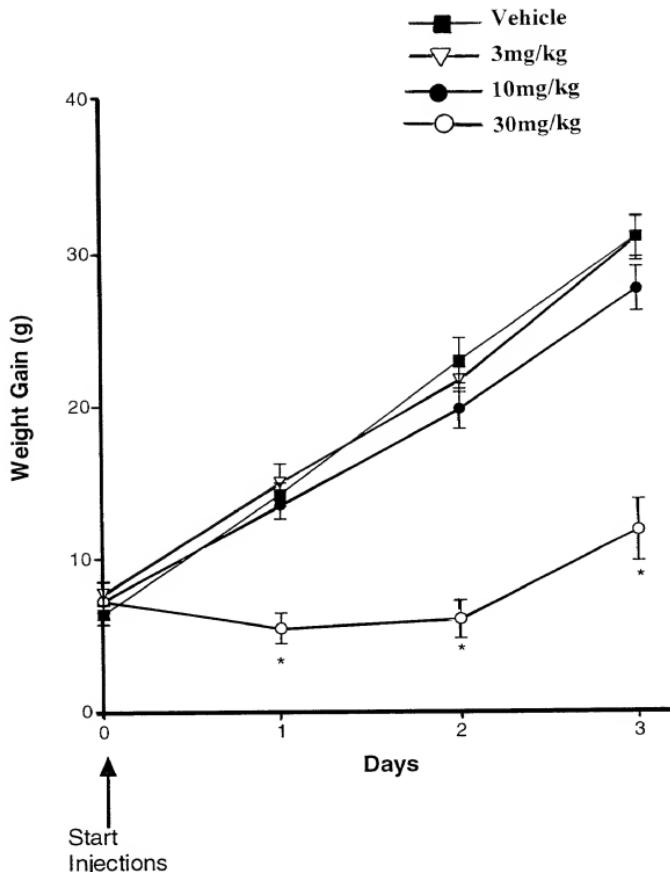
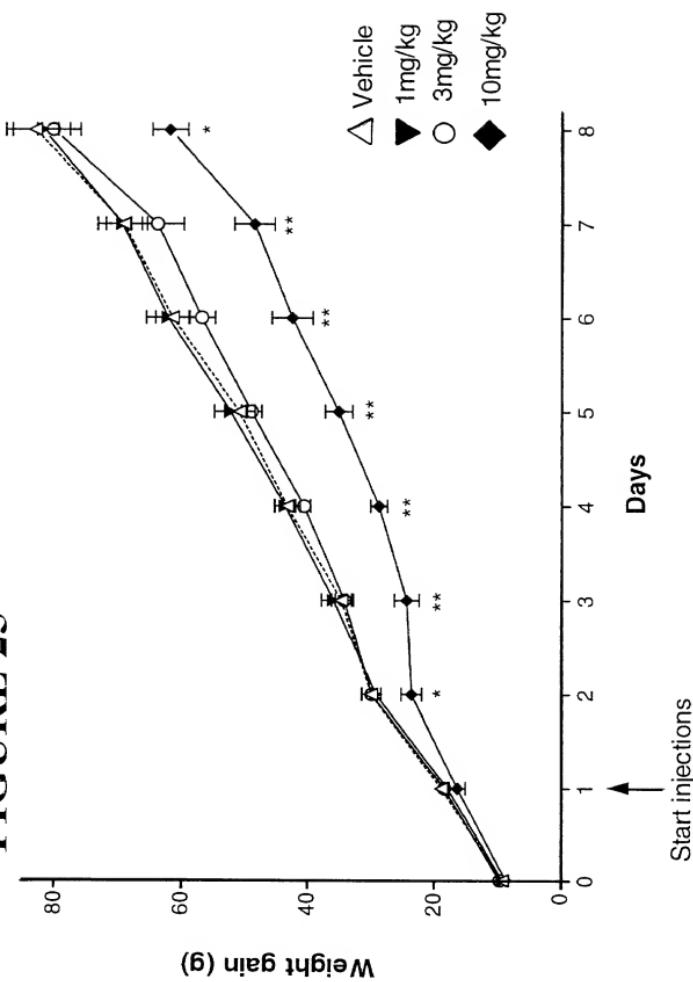


FIGURE 25



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**FIGURE 26**

